APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,944	04/20/2001	Dong-Hoon Bae	42321/DBP/Y35	4121

			EXAMINER

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EXAMINER

GODDARD, BRIAN D

ART UNIT	PAPER NUMBER
2171	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 June 2004</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1 and 3-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1 and 3-15</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>20 April 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to Amendment D, filed 07 June 2004 with a

Request for Continued Examination.

2.   Claims 1 and 3-15 are pending in this application. Claims 1 and 8 are

independent claims. In Amendment D, claims 16-38 were cancelled and claims 1 & 8

were amended. This action is non-final.

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

3.   Claims 1 and 3-15 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claim 1 recites the limitation "the first level content index" in the thirteenth line of

the claim. There is insufficient antecedent basis for this limitation in the claim. The

claim recites, "a first indexing level," "a plurality of first level content indexes," and "one

of the first level content indexes" prior to this limitation. None of these recitations

provide full and proper antecedent basis for the limitation "the first level content index."

Claims 3-7 are dependent upon claim 1, and are therefore indefinite for the same

reason.

Claim 8 recites the limitation "the first level content index" in the twenty-fourth line of the claim. There is insufficient antecedent basis for this limitation in the claim for the same reasons as those discussed with regard to claim 1.

Claims 9-15 are dependent upon claim 8, and are therefore indefinite for the same reason.

In the interest of compact prosecution, the examiner assumes that "the first level content index" refers to the "one of the first level content indexes representing a particular category..." in both sets of claims.

Claim Rejections - 35 USC § 103

4.   Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,144,968 to Zellweger in view of U.S. Patent No. 5,544,354 to May et al. and further in view of U.S. Patent No. 6,430,558 to Delano and U.S. Patent No. 6,101,506 to Ukai et al.

Referring to claim 1, Zellweger teaches a contents structure as claimed. See Figures 2-8 and the corresponding portions of Zellweger's specification for this disclosure. In particular, Zellweger teaches a content indexing structure [20, 30 & 40] comprising:

a first indexing level [hierarchical level of non-leaf nodes (e.g. Ux where x = 1, 2, 3, ... n)] having a plurality of first level content indexes [index nodes 20], one of the first level content indexes representing particular category [topic (e.g. by topical keyword)] associated with a particular feature [See Figs. 4 & 8-9]; and

a second indexing level [lower hierarchical level (e.g. Uxy where x = 1, 2, 3, ...n and y = 1, 2, 3, ...n)] having a plurality of second level content indexes [index nodes 20], each of the second level content indexes having an association [hierarchical relation (e.g. x in example above)] with the first level content index representing the particular category.

Zellweger's content indexes at each level are not explicitly connected in a substantially circular manner as claimed. However, Zellweger's hierarchical index structure is navigable in a circular manner as shown in Figure 4. A user can scroll through a level in the hierarchy, and navigate to a higher or lower level to scroll through as well. Furthermore, Figure 4d shows the capability of scrolling through the actual objects in a circular manner. This provides suggestion for arranging Zellweger's hierarchical indexing levels in a circular manner.

May discloses a system and method similar to that of Zellweger, wherein the hierarchical index is arranged in a substantially circular manner as claimed. See Figure 1 and the corresponding portion of May's specification for this disclosure. In particular, May's multimedia matrix is a hierarchical index structure having the hierarchical levels connected in a substantially circular manner as claimed.

Neither Zellweger nor May explicitly associate a weighing value with each of the second level content indexes for the circular arrangement as claimed. However, both arrange the content indexes at each level according to a sequence. This in itself provides suggestion for arranging each level according to a weighing value representative of a sequence.

Delano discloses a system and method similar to those of Zellweger and May, wherein each hierarchical content indexing level is arranged according to weighting values as claimed. See column 7, line 59 – column 8, line 3 of Delano's specification for the details of this disclosure.

Neither Zellweger, May nor Delano explicitly states that any (one) of the first level content indexes are selected from the second level content indexes as claimed. However, each teaches that the first level content indexes are representative of the second level content indexes beneath them. This provides suggestion for selecting one of the second level content indexes as a first level content index above it because nothing is more representative of an object than itself.

Ukai discloses an indexing system similar to all of those mentioned above, wherein at least one of the first level content indexes [116 (e.g. Hitachi Catalog Vol. 5)] is selected from [See Figures 1, 2 & 7] the second level content indexes [112 (e.g. Hitachi Catalog Vol. 1, Vol. 2...Vol. 5)] as claimed. See Figures 1-2 & 7 and the corresponding portions of Ukai's specification for this disclosure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to organize Zellweger's hierarchical indexing levels in the circular manner presented by May in accordance with the weighting scheme presented by Delano, and further to select one or more of the first level content indexes from the second level content indexes in the manner of Ukai's disclosure to obtain the invention as claimed. One would have been motivated to do so because of Zellweger's

suggestions as discussed above in order to present a more user-friendly interface as
suggested by May.

Referring to claim 3, the system and method of Zellweger in view of May, Delano
and Ukai as applied to claim 1 above discloses the invention as claimed. See Figures
1-9 and the corresponding portions of Zellweger's specification as well as Figures 1-2
and the corresponding portions of May's specification for this disclosure. Zellweger's
(as modified by May, Delano and Ukai) category consists of types [topics] and keywords
as claimed.

Referring to claim 4, the system and method of Zellweger in view of May, Delano
and Ukai as applied to claim 1 above discloses the invention as claimed. See Figures
1-9 and the corresponding portions of Zellweger's specification as well as Figures 1-2
and the corresponding portions of May's specification for this disclosure. Zellweger (as
modified by May, Delano and Ukai) teaches the structure of claim 1, as above, wherein
moving between contents indexed by the content indexing structure includes moving
from the first indexing level to the second indexing level [Zellweger: right arrow (See
Fig. 4)] or from the second indexing level to the first indexing level [Zellweger: left arrow
(See Fig. 4)] according to a user's manipulations of an input device [e.g. 14 (See Fig. 4)]
as claimed.

Referring to claims 5 & 6, the system and method of Zellweger in view of May,
Delano and Ukai as applied to claim 1 above discloses the invention as claimed. See
Figures 1-9 and the corresponding portions of Zellweger's specification as well as
Figures 1-2 and the corresponding portions of May's specification for this disclosure.

Zellweger in view of May, Delano and Ukai teaches the structure of claim 1, as above,

wherein moving between contents indexed at each level includes moving an input

device in a clockwise or counterclockwise direction [May: Column 6, lines 53-56 &

Zellweger: Column 4, lines 11-22] between associated level content indexes in a

substantially circular manner according to a user's manipulations of the input device as

claimed.

Referring to claim 7, the system and method of Zellweger in view of May, Delano

and Ukai as applied to claim 1 above discloses the invention as claimed. See Figures

1-9 and the corresponding portions of Zellweger's specification as well as Figures 1-2

and the corresponding portions of May's specification for this disclosure. Specifically,

Zellweger's (as modified by May, Delano and Ukai) relationship of the first and second

indexing levels with respect to the present indexing level is updated [Zellweger: Column

4, lines 43-50] after movement between the two as claimed.

5.   Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Zellweger in view of May, Delano and Ukai as applied to claim 1 above, and further in

view of U.S. Patent No. 6,415,319 to Ambroziak.

Referring to claim 8, Zellweger in view of May, Delano and Ukai discloses a

contents display system [Zellweger: Fig. 1] comprising:

a memory [Zellweger: Database of Figs. 2-3];

an interface [Zellweger: Fig. 8] for storing information on analyzed features and

information on one or more content indexes for accessing the content from the memory

[See Zellweger: Figs. 8-9]; and

a content selector [Zellweger: 'integrated menu system' (Column 4, line 6 et

seq.)] for retrieving the content corresponding to the content index stored in the memory

according to a user's request, wherein indexes are generated according to a content

indexing structure including...[See the discussion regarding claim 1 above].

None of the references explicitly disclose "a contents feature analyzer" for

analyzing features of at least one contents unit provided from a source outside of the

contents display system as claimed. However, Zellweger's interface of Figs. 8-9 for

associating keywords to the contents accomplishes this task indirectly through analysis

of the user.

Ambroziak discloses a system and method similar to those of Zellweger, May

and Delano, further including a concept extractor for extracting conceptual information

from a document (content); analyzing the extracted conceptual information; and

assimilating the extracted conceptual information into an index. See Figures 1 & 10-14

and the corresponding portions of Ambroziak's specification for this disclosure. In

particular, Ambroziak teaches "a contents features analyzer [Index Server 130] for

analyzing features [Fig. 10, Steps 1020-1050] of at least one contents unit [web

document in the example provided]" provided from a source [network server] outside of

the system "and storing [Fig. 10, Steps 1050-1060] information on the analyzed features

and information on physical contents for moving to corresponding contents in the

memory" as claimed.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to add Ambroziak's contents features analyzer to the system of

Zellweger in view of May, Delano and Ukai in order to automate Zellweger's process of

creating the index by automatically extracting keywords from the contents and

associating the contents with the keywords in the index. One would have been

motivated to do so because of the common desire to automate processes commonly

performed by a human user, in order to alleviate Zellweger's users of the need to

analyze and index the contents manually through the interface.

Referring to claim 9, the system of Zellweger in view of May, Delano and

Ambroziak as applied to claim 8 above discloses the invention as claimed. See Figures

2-4 and the corresponding portions of Zellweger's specification for this disclosure.

Zellweger's (as modified by May, Delano and Ambroziak) first level content index

representing the particular category best exemplifies [best exemplary keyword/topic] the

particular feature of the category as claimed.

Claims 10-14 are rejected on the same basis as claims 3-7 respectively, in light

of the basis for claim 8. See the discussions regarding claims 1-8 above for the details

of this disclosure.

Referring to claim 15, the system and method of Zellweger in view of May,

Delano and Ambroziak discloses the invention as claimed. See Figure 4 and the

corresponding portion of Zellweger's specification for this disclosure. In particular, Zellweger's (as modified by May, Delano and Ambroziak) contents selector comprises:

a first contents selector [interface of Figs. 4a & 4b] for controlling a display of contents associated with the first level content indexes when the first level content indexes [non-LEAF nodes] stored in the memory are selected according to a user's manipulations; and

a second contents selector [interface of Figs. 4b & 4c] for controlling a display of contents associated with the second level content indexes when the second level content indexes [LEAF nodes] stored in the memory are selected according to a user's manipulations as claimed.

Response to Arguments

6.   Applicant's arguments with respect to claims 1 and 3-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goddard whose telephone number is 703-305-7821. The examiner can normally be reached on M-F, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

FRANTZ COBY
PRIMARY EXAMINER

bdg
22 July 2004